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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,479

03/24/2006

Samuel Neto

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7590

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EXAMINER

HARP, WILLIAM RAY

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,479	<b>Applicant(s)</b> NETO ET AL.	
	<b>Examiner</b> William R. Harp	<b>Art Unit</b> 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                              |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                      |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                                 |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application            |
| Paper No(s)/Mail Date <u>7/10/2006</u> .                                               | 6) <input checked="" type="checkbox"/> Other: <u>DE4006935 Translation</u> . |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) was submitted on July 10, 2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "34" has been used to designate both upper edge [P6, L34] and annular first opening [P6, L39].
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both struts [P7, L16] and ribs [P6, L27].
5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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### ***Specification***

6. The use of the trademark Teflon has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Objections***

7. Claim 1 is objected to because of the following informalities:

- a. Regarding Claim 1, Line 2 – “in a fludized bed” should read – in a fluidized bed -  
-.
- b. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

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3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Document DE 4006936 (as described in Applicant's specification and in mechanical translation provided by examiner) in view of Miha et al. (USPN 6335402).

11. Regarding Claims 1-4, the German Document teaches an apparatus for coating pulverulent, granular or shaped loose material in a fluidized bed, which comprises a container (1) for accommodating the loose material, with a bowl-like depression (4) being provided in a lower region (3) of the container, a central tube (6) for introducing a gas, with the central tube entering the container in an upper region (14) of the container and extending essentially axially downward in the container and opening into the depression, a substantially annular deflection shield (8) which is fixed to the central tube in the upper region of the container, a guide ring (11) which is located in the lower region of the container and surrounds the central tube essentially concentrically at a distance for part of its length so that a first opening (12) is formed between the wall of the container at the upper edge (20) of the depression and the lower end of the guide ring and a second opening (13) is formed between the deflection shield and the upper edge of the guide ring. The German Document further teaches the guide ring is fixed to the central tube by struts (24). The German Document fails to teach an adhesion-reducing coating. Miha et al. teaches that it is desirable to reduce deposits in reactors such as fluidized-bed reactors [C1, L14-28, C2, L57-65]. Miha et al. further teaches applying an adhesion-reducing coating [C2, L30-35]. Therefore, it would have been obvious to one of ordinary skill to apply an adhesion-reducing coating to the parts of a fluidized-bed reactor to reduce deposits.

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12. Regarding Claims 5 and 6, it would have been obvious to use a polymer of fluorinated, ethylenically unsaturated hydrocarbon or a perfluorinated fluoropolymer as an adhesion-reducing coating since the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

13. Regarding Claims 7 and 13, the German Document teaches the height of the first opening corresponds to the distance between the wall of the central tube and the wall of the guide ring [Para. 21 of translated document], yet fails to teach that the distance between the wall of the central tube and the wall of the guide ring is greater than the open height of the first opening. However, it would have been obvious to one of ordinary skill to specify the proportions of the device, since the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

14. Regarding Claims 8 and 14, the German Document is silent on the relationship between the distance between the wall of the central tube and the wall of the guide ring and the diameter of the deflection shield. However, it would have been obvious to one of ordinary skill to specify the proportions of the device, since the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

15. Regarding Claim 9, it would have been obvious to optimize the distance between the central tube and the guide ring based on the dimensions of the loose material, since the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

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16. Regarding Claims 10, 15, and 16, the German Document teaches the height of the guide ring is in the range from one-third to two-thirds of the distance between the upper edge of the depression and the central axis of the container [as described in applicant's specification, P3, L2-4].

17. Regarding Claim 11, the German Document is silent on the relationship of between the diameter of the guide ring and the diameter of the container, however, it would have been obvious to one of ordinary skill to specify the proportions of the device, since the optimization of proportions in a prior art device is a design consideration within the skill of the art. In re Reese, 290 F.2d 839, 129 USPQ 402 (CCPA 1961).

18. Regarding Claim 12, it would have been obvious to one of ordinary skill that the combination of the German Document in view of Mahin et al. would operate in its normal and expected fashion to perform the claimed method.

19. Regarding Claim 17, the German Document teaches a means (21) for introducing a fluid into the container.

20. Regarding Claim 18, the German Document teaches fluid inputs (21) proximate to the depression for introducing a fluid into the container, as illustrated in Figure 1 of the German Document.

21. Claim 19 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ruedinger et al. (USPN 6274763).

22. Regarding Claim 19, Ruedinger et al. teaches a metal oxide catalyst containing titanium dioxide, vanadium pentoxide, and antimony trioxide [C8, L43-50]. Claim 19 appears to be a product-by-process claim. If the product in the product-by-process claim is the same as or

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obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See MPEP 2113.

***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is directed to fluidized-bed reactors and adhesion-reducing coatings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William R. Harp whose telephone number is (571) 270-5386. The examiner can normally be reached on Monday - Thursday, 8:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/  
Supervisory Patent Examiner, Art Unit  
3651



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/W. R. H./

Examiner, Art Unit 3651